6/7/01-3070

Baker

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June 7, 2001

North Carolina Department of
Environmental and Natural Resources
Division of Environmental Management
Groundwater Section
127 Cardinal Drive Extension
Wilmington, North Carolina 28405-3845

Attn: Ms. Diane Rossi

Re: Contract N62470-95-D-6007
Navy CLEAN II, District III
Contract Task Order (CTO) 0120
Site 3, Old Creosote Plant
Marine Corps Base, Camp Lejeune

Dear Ms. Rossi:

On behalf of the Atlantic Division Naval Facilities Engineering Command (LANTDIV) and the Environmental Management Department (EMD) at MCB, Camp Lejeune this letter serves to notify you of the proposed actions planned for Site 3. At the January 2001 Partnering Meeting held in Wilmington, North Carolina, a plan was discussed to install a deep monitoring well at Site 3 under Baker Environmental's Long-Term Monitoring (LTM) Program. The intention of the well, as discussed at Partnering, was to assess deep groundwater conditions in the Castle Hayne aquifer (Base's primarily drinking water aquifer) downgradient of the source area and to serve as a sentential monitoring point between the site and water supply well.

As part of this action, the EMD was also evaluating the possibility of permanently removing water supply well HP-613 from production. This action should remove potential impacts from Site 3 on the Base's water supply system (Note that this is the only drinking water supply well in the immediate area. The next closest water supply well is located approximately 1,800 feet upgradient of Site 3). During a conference call held on May 31, 2001, EMD (Mr. Thomas Burton) indicated that actions are underway to remove this well from service in the near future. This action will eventually lead to permanent abandonment of this well. Although this action has not been implemented to date, the well is not currently producing water for consumption.

Polynuclear aromatic hydrocarbon (PAHs) compounds are present in the site's groundwater above the North Carolina Water Quality Standard (2 L NCWQS) based on the data collected during LTM. The highest concentrations of these compounds are primarily within the surficial aquifer at depths under 30 feet below ground surface (bgs). Lower concentrations at levels below the 2L standards are also found at a depth of 87 feet bgs (most notably in the hot spot area); however, these compounds are not present below this depth. Table 1 and Figure 1 attached provide the groundwater results from January 2001. It should be noted that a removal action was completed at this site in July 2000 to excavate and remove PAH contaminated soils. This action was intended to remove the source contamination that is impacting the groundwater.

At this time, LANTDIV and EMD are recommending that the new deep well not be installed at Site 3. This action is warranted now give the fact that the deeper groundwater at Site 3 is not currently impacted by PAHs and that the nearest water supply well will be permanently taken out of service. Furthermore, the removal of the contaminated soils has mitigated the source impacting the groundwater.

Should you have any questions or comments on the enclosed letter, please do not hesitate to contact me at (412) 269-2033 or Mr. Thomas Burton at Camp Lejeune (910-451-5068).

Sincerely,

BAKER ENVIRONMENTAL, INC.

Richard E. Bonelli, P.G.
Activity Coordinator

REB/lp

cc: Mr. Thomas Burton, MCB, Camp Lejeune (w/attachments)
Mr. Rick Raines, MCB, Camp Lejeune (w/attachments)
Mr. Channing Blackwell, LANTDIV (w/attachments)
Mr. Kirk Stevens, LANTDIV (w/attachments)
Ms. Gena Townsend, U.S. EPA (w/attachments)
Mr. David Lown, NC DENR (Raleigh) (w/attachments)
Dr. Charlie Stehman, NC DENR (Wilmington) (w/attachments)
Mr. Jim Dunn, OHM/IT (w/attachments)
Mr. Scott Bailey, CH2M HILL (w/attachments)
Mr. Dave Collins, CH2M HILL (w/attachments)

ATTACHMENTS

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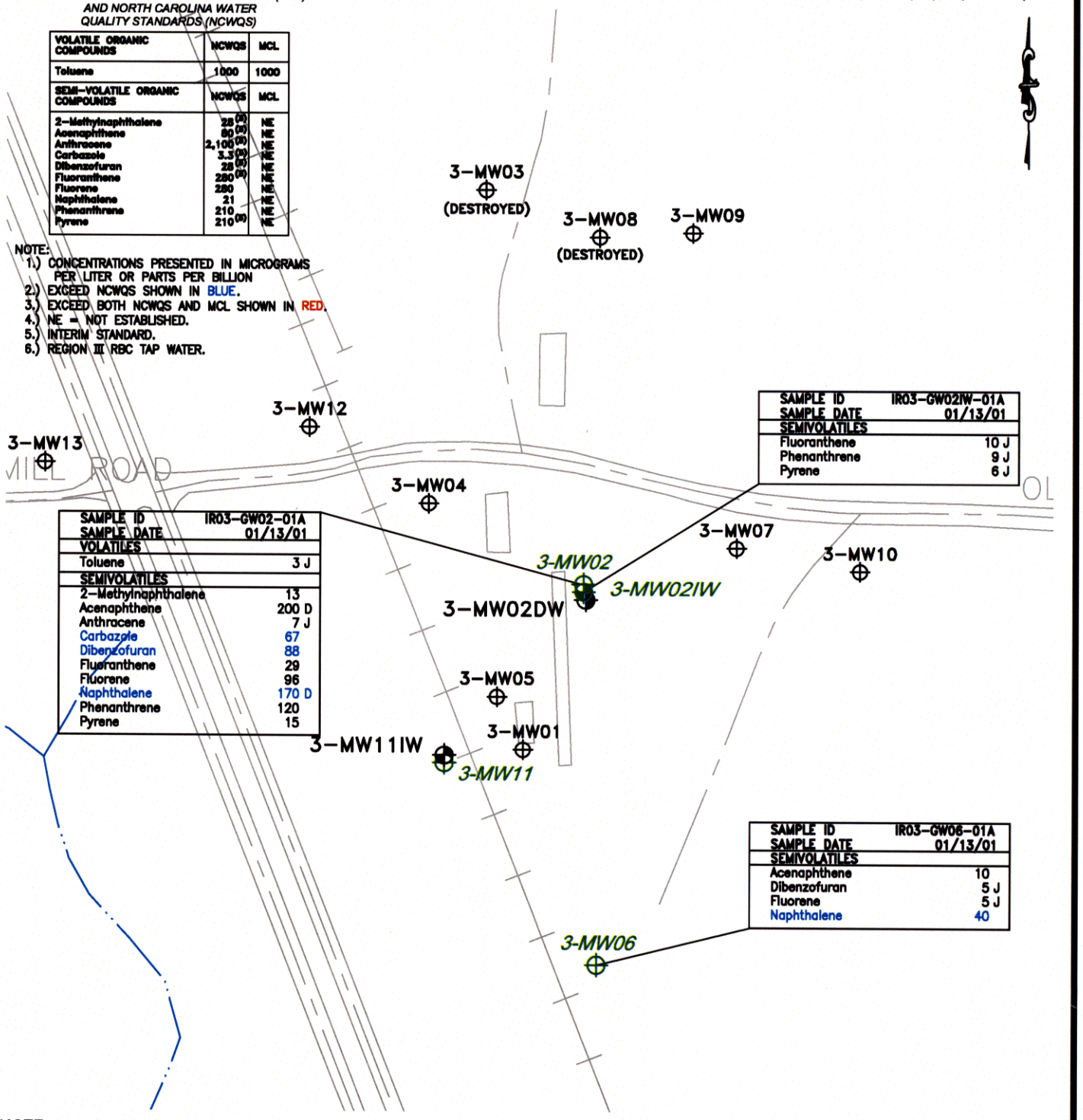
FEDERAL MAXIMUM CONTAMINANT LEVELS (MCL) AND NORTH CAROLINA WATER QUALITY STANDARDS (NCWQS)

VOLATILE ORGANIC COMPOUNDS	NCWQS	MCL
Toluene	1000	1000
SEMI-VOLATILE ORGANIC COMPOUNDS	**NCWQS**	**MCL**
2-Methylnaphthalene	28 (6)	NE
Acenaphthene	80 (6)	NE
Anthracene	2,100 (6)	NE
Carbazole	3.3 (6)	NE
Dibenzofuran	28 (6)	NE
Fluoranthene	280 (6)	NE
Fluorene	280	NE
Naphthalene	21	NE
Phenanthrene	210	NE
Pyrene	210 (6)	NE

NOTE:
1.) CONCENTRATIONS PRESENTED IN MICROGRAMS PER LITER OR PARTS PER BILLION
2.) EXCEED NCWQS SHOWN IN BLUE.
3.) EXCEED BOTH NCWQS AND MCL SHOWN IN RED.
4.) NE = NOT ESTABLISHED.
5.) INTERIM STANDARD.
6.) REGION III RBC TAP WATER.



NOTE:
-WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

200 0 100 200
1 inch = 200 ft.

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LEGEND

3-MW02 — SHALLOW MONITORING WELL

3-MW02IW — INTERMEDIATE MONITORING WELL

3-MW02DW — DEEP MONITORING WELL

SOURCE: MCB, CAMP LEJEUNE MARCH 2000

FIGURE 1
ORGANIC COMPOUNDS IN GROUNDWATER JANUARY 2001
OPERABLE UNIT NO. 12 – SITE 3
MONITORING AND O&M SUPPORT, CTO-0120

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - JANUARY 2001
OPERABLE UNIT NO. 12 - SITE 3
MONITORING AND O&M SUPPORT, CTO-0120
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Compound	Comparison Criteria			Concentration Range of Positive Detections		Location of Maximum Detection	Detection Frequency	Detections Above		
		NCWQS	MCL	ROD	Min.	Max.			NCWQS	MCL	ROD
Volatile Organic Compounds	Toluene	1000	1000	NE	3J	3J	MW02	1/4	0	0	NA
Semi-Volatile Organic Compounds	2-Methylnaphthalene	28[1]	NE	63	13	13	MW02	1/4	0	NA	0
	Acenaphthene	80[1]	NE	NE	10	200D	MW02	2/4	1	NA	NA
	Anthracene	2,100[1]	NE	NE	7J	7J	MW02	1/4	0	NA	NA
	Carbazole	3.3	NE	4	67	67	MW02	1/4	1	NA	1
	Dibenzofuran	28[1]	NE	6	5J	88	MW02	2/4	1	NA	1
	Fluoranthene	280[1]	NE	NE	10J	29	MW02	2/4	0	NA	NA
	Fluorene	280	NE	NE	5J	96	MW02	2/4	0	NA	NA
	Naphthalene	21	NE	21	40	170D	MW02	2/4	2	NA	2
	Phenanthrene	210	NE	210	9J	120	MW02	2/4	0	NA	0
	Pyrene	210[1]	NE	NE	6 J	15	MW02	2/4	0	NA	NA

Notes:

Concentrations presented in micrograms per liter (µg/L).

[1] = NCWQS Interim Standard
D = Result was obtained from the analysis of a dilution.
J = Compound Detected at an Estimated Concentration
MCL = Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to users of public water systems (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories).
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2L).
ROD = Record of Decision for OU 12 Remediation Levels for Contaminants of Concern (Baker, July 2000)
NE = Not Established
NA = Not Applicable